

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017425**Date Inspected:** 16-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC)**Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 12AW (T-Ribs at FL3)

This QA Inspector performed Dimension Control Inspection on the Side Panel T-Ribs to T-Ribs at FL3 for the Segment 12AW between Panel Point (PP) 110, PP 111 and PP 112 at the following locations after snug tightening of bolts:

Work Point W4 towards Work Point W6 (Side Panel Cross Beam Side) total 19 T-Ribs.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge and measured the Horizontal Offset on the web using a Bridge Cam gauge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

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Segment 10BW to 10CW (Transverse Splice T-Ribs)

This QA Inspector performed Dimension Control Inspection on the Transverse Splice T-Ribs to T-Ribs after bolting for the Segment 10BW to Segment 10CW between Panel Point (PP) 91 to PP 92 at the following locations:

Work Point W6 towards Work Point W4 (Side Panel Cross Beam Side) total 19 T-Ribs.

Work Point W4 towards Work Point W3 (Bottom Panel) total 18 T-Ribs.

Work Point W3 towards Work Point W1 (Side Panel Counter Weight Side) total 19 T-Ribs.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge and measured the Horizontal Offset on the web using a Bridge Cam gauge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 10AE and Segment 10CE (Cope Holes)

This QA Inspector performed Dimension Control Inspection for the Segment 10AE and Segment 10CE and measured the Cope hole dimensions located at the Longitudinal Diaphragms (East side) at the following locations:

Segment 10AE at Panel Point (PP) 88 at east side of work point E3 and work point E4.

Segment 10CE at PP 92 at east side of work point E3 and work point E4.

The QA Inspector measured the cope hole dimensions using a 150mm steel ruler.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 10AE (Re-entrant Corner)

This QA Inspector performed Dimension Control Inspection for the Segment 10AE at the following locations:

The re-entrant corners at the Floor Beam vertical flange radius were verified and measured at Panel Points (PP) 88 on the Bike Path side (BK) and Cross Beam(CB) side on east side of Floor Beam. The QA Inspector measured the radius of re-entrant corner using a pre-cut 25mm and 50mm template.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 10CE (Re-entrant Corner)

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This QA Inspector performed Dimension Control Inspection for the Segment 10CE at the following locations:

The re-entrant corners at the Floor Beam vertical flange radius were verified and measured at Panel Points (PP) 92 and PP 94 on the Bike Path side (BK) and Cross Beam(CB) side on east side of Floor Beam. The QA Inspector measured the radius of re-entrant corner using a pre-cut 25mm and 50mm template.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 11AW

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as CA079-006. The welder identification was 046709 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as Corner Assembly hold back weld at work point W2. ZPMC performed repair welding in accordance with B-WR-160008.

Please reference the pictures attached for more comprehensive details.

Segment 11BW

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as CA083-002. The welder identification was 046709 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as Corner Assembly hold back weld at work point W2. ZPMC performed repair welding in accordance with B-WR-16008.

Segment 11AW to 11BW

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW11B-004. The welder identification was 040611 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G(3F)-FCM-Repair-1. The piece mark was identified as the Side Panel transverse splice on cross beam side. ZPMC performed repair welding in accordance with B-WR-15989.

Segment 11AW to 11BW

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW11B-002. The welder identification was 040378 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the Side Panel transverse splice on counter weight side. ZPMC performed repair welding in accordance with B-WR-16012.

Segment 11AW to 11BW

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This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW11B-001. The welder identification was 040378 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the Side Panel Corner Assembly transverse splice on counter weight side. ZPMC performed repair welding in accordance with B-WR-16012.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer